

What is claimed is:

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1. In an information processing system, a method for securing an information stream comprising a sequence of information frames, said method comprising the steps of:
    - segmenting said information stream into a plurality of information stream segments having a first segment sequence, each of said information stream segments comprising a plurality of information frames;
    - compressing said information frames forming said information stream segments;
    - re-sequencing said information stream segments to produce a re-sequenced information stream having a second segment sequence, said first segment sequence being related to said second segment sequence by an index; and
    - encrypting said re-sequenced information stream and said index.
  2. The method of claim 1, further comprising the steps of:
    - distributing said encrypted re-sequenced information stream and said index to one or more information consumers.
  3. The method of claim 2, wherein, said step of distributing comprises the steps of:
    - distributing, via a first medium, said encrypted re-sequenced information stream; and
    - distributing, via a second medium, said encrypted index.
  4. The method of claim 2, wherein said encrypted and re-sequenced information stream segments are distributed to said one or more information consumers in a temporally discontinuous manner.
  5. The method of claim 3, wherein said encrypted and re-sequenced information stream segments are distributed to said one or more information consumers in a temporally discontinuous manner.
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6. The method of claim 5, wherein:  
said second distribution channel comprises a plurality of distribution channels, each of said plurality of distribution channels
- 5 distributing a respective plurality of said encrypted and re-sequenced information stream segments.
7. The method of claim 1, wherein:  
each of said information stream segments comprises approximately
- 10 a first number of compressed information frames.
8. The method of claim 7, wherein:  
in the case of an information stream segment including one or more predictively encoded compressed information frames, said one or
- 15 more predictively encoded compressed information frames being predictively encoded using reference information frames within said information segment including said one or more predictively encoded compressed information frames.
- 20 9. The method of claim 1, wherein:  
a first compressed information frame within each of said information segments comprises a non-predicted information frame.
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10. The method of claim 1, wherein:  
said information stream comprises a plurality of image frames and associated audio frames; and
- 25 each of said information stream segments includes a respective first plurality of image frames and a respective second plurality of audio frames, said first plurality of image frames and said second plurality of
- 30 audio frames intended for presentation during substantially the same temporal period.

*Sud A3* > 11. The method of claim 1, wherein said information stream comprises a plurality of image frames and associated audio frames, and wherein said step of segmenting comprises the steps of:

5 segmenting said information stream into a plurality of image information stream segments having said first segment sequence, each of said image information stream segments comprising a plurality of image frames;

10 segmenting said information stream into a plurality of audio information stream segments having a third segment sequence, each of said audio information stream segments comprising a plurality of image frames.

12. The method of claim 11, wherein said step of re-sequencing comprises the steps of:

15 re-sequencing said image information stream segments to produce a re-sequenced image information stream having said second segment sequence, said first segment sequence being related to said second segment sequence by said index; and

20 re-sequencing said audio information stream segments to produce a re-sequenced audio information stream having said fourth segment sequence, said third segment sequence being related to said fourth segment sequence by said index.

25 13. The method of claim 12, wherein said image information stream and said audio information stream are encrypted using one of a common encryption technique using a common encryption key, a common encryption technique using different encryption keys, different encryption techniques using a common encryption key and different encryption techniques using different encryption keys.

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14. The method of claim 1, wherein said step of compressing said information frames produces control information indicative of a utilization level of a decoder buffer; and

said step of encrypting includes a step of encrypting said indicia of decoder buffer utilization.

15. In an information processing system, a method for recovering  
5 information frames from an information stream formed according to the  
securing method of claim 1, said method for recovering comprising the  
steps of:

recovering said index relating said second segment sequence to said  
first segment sequence;

10 decrypting said encrypted information stream segments to produce  
corresponding decrypted information stream segments;

re-sequencing, using said recovered index, said decrypted  
information stream segments; and

15 decompressing, using a decompression process associated with  
said compression process, said compressed information frames included  
within said decrypted information stream segments.

16. The method of claim 15, wherein:

20 said encrypted re-sequenced information stream is received via a  
first medium; and

said encrypted index is received via a second medium.

17. The method of claim 16, wherein said encrypted and re-sequenced  
information stream segments are received in a temporally discontinuous  
25 manner.

18. The method of claim 15, wherein said step of re-sequencing  
comprises the steps of:

30 accessing, from a random access storage containing at least some  
of said decrypted information stream segments, said decrypted  
information stream segments according to said first segment sequence.

19. In an information processing system, a method for recovering  
information frames from an information stream formed according to the

securing method of claim 1, said method for recovering comprising the steps of:

recovering said index relating said second segment sequence to said first segment sequence;

5       re-sequencing, using said recovered index, said encrypted information stream segments;

decrypting said encrypted information stream segments to produce corresponding decrypted information stream segments; and

10      decompressing, using a decompression process associated with said compression process, said compressed information frames included within said decrypted information stream segments.

20.     The method of claim 19, wherein:

15      said encrypted re-sequenced information stream is received via a first medium; and

      said encrypted index is received via a second medium.

21.     The method of claim 20, wherein said encrypted and re-sequenced information stream segments are received in a temporally discontinuous 20 manner.

22.     The method of claim 19, wherein said step of re-sequencing comprises the steps of:

25      accessing, from a random access storage containing at least some of said encrypted information stream segments, said encrypted information stream segments according to said first segment sequence.

30     In an information distribution system, a method for recovering an information stream having a first segment sequence from an encrypted re-sequenced information stream having a second segment sequence, said method comprising the steps of:

      recovering an index relating said second segment sequence to said first segment sequence;

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- decrypting said encrypted information segments to form respective decrypted information segments;
- re-sequencing, using said recovered index, said decrypted information segments to form an information stream comprising a plurality of information segments arranged according to said first segment sequence; and
- decompressing a plurality of information frames forming each of said information stream segments.
- 10 24. In an information processing system, apparatus comprising:  
a segmentation module, for segmenting an information stream into a plurality of information stream segments, said information stream segments arranged according to a first segment sequence, each of said information stream segments comprising a plurality of information frames;
- a compression module, for compressing said information frames forming said information stream segments;
- a re-sequencing module, for re-arranging according to a second segment sequence, said information stream segments including said compressed information frames, said first segment sequence being related to said second segment sequence by an index; and
- an encryption module, for encrypting said re-sequenced information stream segments and said index
- 25 25. The apparatus of claim 23, wherein:  
said index and said encrypted and re-sequenced information stream segments are coupled to one or more information consumers via a distribution channel.
- 30 26. The apparatus of claim 23, wherein:  
said index is distributed to one or more information consumers via a first distribution channel; and

~~said encrypted and re-sequenced information stream segments are distributed to said one or more information consumers via a second distribution channel.~~

- 5 27. The apparatus of claim 25, wherein:  
said encrypted and re-sequenced information stream segments are  
distributed to said one or more information consumers in a temporally  
discontinuous manner.

10 28. The apparatus of claim 26, wherein:  
said encrypted and re-sequenced information stream segments are  
distributed to said one or more information consumers in a temporally  
discontinuous manner.

15 29. The apparatus of claim 28, wherein:  
said second distribution channel comprises a plurality of  
distribution channels, each of said plurality of distribution channels  
distributing a respective plurality of said encrypted and re-sequenced  
information stream segments.